DRYWALL JOINT FIXTURE AND METHOD

BACKGROUND OF THE INVENTION

This invention relates to structure of drywall joints for corner beads, arches, edges, flats and other drywall applications after the drywall has been positioned.

Drywall cornering, beads and joints are a common feature of construction of private and many commercial dwellings and business structures. Numerous devices and methods for joining drywall at corners, arches windows and flats are known, but continue to be devised because none have proved sufficiently adequate to satisfy needs of this feature of construction. Included have been freehand plastering and many differing rigid corner beads, paste-on beads, tack-on beads and combinations thereof.

None, however, have post-positioning corner beads and joints for all drywall applications in a manner taught by this invention.

Listed below for consideration is known related but different prior art:

US Patent/Publication No.:	Inventor	Issue/Publication Date
6,447,872	Larson	09/10/2002
6,438,914	Robertson	08/27/2002
2002/0073638	Kunz *et al.*	06/20/2002
2002/0073639	Kunz *et al.*	06/20/2002
D458,388	Harel	06/04/2002
D457,658	Harel	05/21/2002
6,338,229	Botzen	01/15/2002
6,131,348	Dunham	10/17/2000
6,073,406	Kearney	06/13/2000
5,836,122	Rennich *et al.*	11/17/1998
5,444,953	Koenig *et al.*	08/29/1995
6,223,486	Dunham	05/01/2001
6,148,573	Smythe, Jr.	11/21/2000
6,295,776	Kunz *et al.*	10/02/2001

SUMMARY OF THE INVENTION

Objects of patentable novelty and utility taught by this invention are to provide a drywall-joint fixture and method which can decrease costs for installation of all forms of drywall construction substantially.

This invention accomplishes these and other objectives with a drywall-joint fixture and method having a drywall-joint cover that can be attached to a drywall joint, arch, wall flat or other drywall structure after drywall is positioned on wall framework of a building and before the drywall and the drywall-joint cover are surfaced with paint or other wall cover. The drywall-joint cover has a surface covering for each of at least two drywall surfaces to be covered by a single drywall-joint cover. Intermediate a front surface covering and a side surface covering of the drywall-joint cover is an attachment flange for being extended from an inside surface of the drywall-joint cover and inserted between an end edge of a first drywall and a joint edge of a second drywall. Fastener shanks are affixed through a side drywall and into the wall framework. The attachment flange is inserted between the end edge of the first drywall and the joint edge of the second drywall. Then a side-surface covering is positioned on and fastened to the side-positioned drywall and a front-surface covering is positioned on and fastened to the second drywall.

The above and other objects, features and advantages of the present invention should become readily apparent to those skilled in the art from reading the following detailed description in conjunction with the drawings wherein illustrative embodiments of the invention are shown and described.

BRIEF DESCRIPTION OF DRAWINGS

This invention is described by appended claims in relation to description of a preferred embodiment with reference to the following drawings which are explained briefly as follows:

FIG. 1 is a top view of a drywall-joint cover of a right-angle drywall joint positioned on drywall sheets that are attached to wall framework and held with a fastener shank which engages an attachment flange between a first sheet of drywall and the wall framework;

FIG. 2 is top view of the **FIG. 1** drywall-joint cover separately;

FIG. 3 is a top view of the drywall-joint cover having cover steps on which wall-finishing material is positioned;

FIG. 4 is a perspective view of a drywall-joint cover having a side-surface covering with mud apertures for application of finishing mud;

FIG. 5 is a perspective view of a drywall-joint cover having a side-surface covering with net material;

FIG. 6 is a perspective view of a drywall-joint cover having a side-surface covering with fiberglass sheeting;

FIG. 7 is a fragmentary top view of a wall-end drywall-joint cover having bull-nose corners;

FIG. 8 is a fragmentary top view of a drywall-joint cover of a right-angle drywall joint having an L-leg second side for extension to nearby window and other wall structure;

FIG. 9 is a fragmentary top view of an open-cornered wall-end drywall-joint cover of a right-angle drywall joint having the attachment flange extended from

second sides with fastener shanks affixed through first sheets of the drywall and bull-nose covering of the open corners;

FIG. 10 is the **FIG. 9** illustration with closed corners;

FIG. 11 is a fragmentary top view of an open-cornered wall-end drywall-joint cover of a single right-angle drywall joint having the attachment flange extended from the second side with a fastener shank affixed through the first side and with bull-nose covering of the open corner;

FIG. 12 is a fragmentary top view of an open-cornered wall-end drywall-joint cover of a single right-angle drywall joint having the attachment flange extended from the first side with a fastener shank affixed through the second side and with bull-nose covering of the open corner;

FIG. 13 is a fragmentary top view of an inside drywall-joint cover having a concave corner with the attachment flange glued between the first-sheet edge and the second-sheet edge;

FIG. 14 is the **FIG. 13** illustration with addition of an inside-wall edge extended intermediate the second side and the attachment flange;

FIG. 15 is a top view of the **FIG. 14** illustration with an open corner;

FIG. 16 is a top view of the **FIG. 15** illustration with an open corner;

FIG. 17 is a fragmentary top view of an inside drywall-joint cover having a concave corner with the attachment flange extended from the second side and glued to the first-sheet edge of an open corner and having the inside-wall edge extended intermediate the first side and the attachment flange;

FIG. 18 is the **FIG. 17** illustration without the inside-wall edge;

FIG. 19 is a fragmentary top view of the inside drywall-joint cover having the concave corner with the attachment flange extended from the first side intermediate

the second side and inside-wall framework and having the fastener shank affixed through the second side, the attachment flange and the inside-wall framework;

FIG. 20 is the **FIG. 19** illustration with the inside-wall edge;

FIG. 21 is the **FIG. 19** illustration with an open corner;

FIG. 22 is the **FIG. 20** illustration with the open corner;

FIG. 23 is a fragmentary top view of the inside drywall-joint cover having the concave corner with the attachment flange extended from the second side intermediate the first side and inside-wall framework and having the fastener shank affixed through the first side, the attachment flange and the inside-wall framework;

FIG. 24 is the **FIG. 23** illustration with the inside-wall edge;

FIG. 25 is a fragmentary top view of an juxtapositional drywall-joint cover having the attachment flange extended intermediate the first side and the second side and positioned intermediate the first-sheet edge and the second-sheet edge with fastener shanks affixed through the first sheet, the second sheet, the second side and into juxtapositional wall framework;

FIG. 26 is the **FIG. 24** illustration with the first side and the second side at an acute angle and the fastener shanks affixed also to a cap backer on the juxtapositional wall framework;

FIG. 27 is the **FIG. 25** illustration with the first side and the second side at an acute angle and the fastener shanks affixed directly to the juxtapositional wall framework;

FIG. 28 is the **FIG. 25** illustration with the first side and the second side at an obtuse angle and the fastener shanks affixed directly to the juxtapositional wall framework;

FIG. 29 is a fragmentary top view of the juxtapositional drywall-joint cover having the attachment flange extended intermediate the first side and the second side and positioned intermediate the first-sheet edge and the second-sheet edge with fastener shanks affixed through the first sheet, the second sheet and the second side which is integrated with a cap backer which is attached to the juxtapositional wall framework;

FIG. 30 is a fragmentary top view of a dual drywall-joint cover having an attachment base from which first and second cover walls and first and second attachment flanges are extended; and

FIG. 31 is an end view of the **FIG. 30** illustration showing optional slots or cuts on ends of the first and second cover walls and first and second attachment flanges.

DESCRIPTION OF PREFERRED EMBODIMENT

Listed numerically below with reference to the drawings are terms used to describe features of this invention. These terms and numbers assigned to them designate the same features throughout this description.

1. Drywall-joint cover
2. Drywall joint
3. First sheet
4. Second sheet
5. Wall framework
6. First side
7. Second side
8. Attachment flange
9. First-sheet edge
10. Second-sheet edge
11. Framework wall
12. Fastener shanks
13. Fastener-edge area
14. First-edge area
15. Second-edge area
16. Net material
17. Mud apertures
18. Fiberglass sheeting
19. L-leg second side
20. Wall-end second side
21. Bull-nose arcuate corner
22. Vacant space
23. Arcuate drywall edges
24. Concave corner
25. Inside-wall edge
26. Wall-end second side
27. First drywall-joint cover
28. Second drywall-joint cover
29. Wall-finishing material
30. Wall-end first side
31. First cover step
32. Second cover step
33. Inside drywall-joint cover
34. Inside drywall joint
35. Inside wall framework
37. Juxtapositional drywall-joint cover
38. Juxtapositional drywall joint
39. Juxtapositional wall framework
40. Juxtapositional-attachment flange
41. Cap backer
42. Dual drywall-joint cover
43. Attachment base
44. First attachment flange
45. Second attachment flange
46. First cover wall
47. Second cover wall
48. Slots
49. Paper face

Referring to **FIGS. 1-6**, a drywall-joint fixture has a drywall-joint cover **1** that is articulated for covering a predetermined drywall joint **2** of a first sheet **3** of drywall and a second sheet **4** of drywall of the drywall joint **2** after the first sheet **3** and the second sheet **4** of drywall of the drywall joint **2** are positioned on wall framework **5** of a building. A first side **6** of the drywall-joint cover **2** covers a predetermined first-edge area **14** on the first sheet **3**. A second side **7** of the

drywall-joint cover **2** covers a predetermined second-edge area **15** on the second sheet **4**.

An attachment flange **8** that is predeterminedly rigid is extended from an inside surface of either the second side **7** or from the first side **6** of the drywall-joint cover **2**. The attachment flange **8** is predeterminedly longer than and parallel to the side opposite from which it is extended. The attachment flange **8** is articulated for being inserted intermediate a first-sheet edge **9** of the first sheet **3** and a second-sheet edge **10** the second sheet **4**. The attachment flange **8** is articulated further for being inserted intermediate the first-sheet edge **9** of the first sheet **3** and a framework wall **11** of the wall framework **5**.

As shown in **FIG. 3**, the first side **6** can have a first cover step **31** for matching height of wall-finishing material **29** on the first side **6** and a second cover step **32** for matching height of wall-finishing material **29** on the second side **7** and for providing joint strength.

The attachment flange **8** is articulated further for being penetrable by fastener shanks **12** which are driven through fastener-edge area **13** that is adjacent to the first-edge area **14** of the first sheet **3** of drywall, through the attachment flange **8** and then into the wall framework **5** proximate the framework wall **11** of the wall framework **5** for maintaining the drywall-joint cover **1** in a covering position on the drywall joint **2**.

The drywall-joint cover **1** is articulated predeterminedly for application of predetermined surfacing material. The surfacing material can include surfacing mud for which at least a portion of the second side **7** includes mud apertures **17** with porosity for receiving portions of the surfacing mud.

The portion of the second side **7** which includes the porosity can include porous net material **16** or other porous material that includes fiberglass sheeting **18**.

Referring to **FIGS. 7-10**, the drywall-joint cover **1** can include an L-leg second side **19** having a length for covering a predetermined length of the second sheet **4**.

Optionally, the drywall-joint cover **1** can include a wall-end second side **20** that is common to two of the drywall-joint covers **1** for covering a length of the second sheet **4** intermediate two of the first sheets **3** that are spaced apart.

The drywall-joint cover **1** can include a bull-nose arcuate corner **21** intermediate the first side **6** and the second side **7** for covering vacant space **22** and arcuate drywall edges **23** selectively intermediate the first sheet **3** and the second sheet **4**.

The attachment flange **8** can further include articulation for being glued to the framework wall **11** of the wall framework **5** for maintaining the drywall-joint cover **1** in a covering position on the drywall joint **2**. The attachment flange **8** can be articulated additionally for being glued to the first sheet **3**, to the second sheet **4** and to the wall framework **5** selectively.

Referring to **FIGS. 11-12**, a wall-end second side **26** can be common to a first drywall-joint cover **27** and to a second drywall-joint cover **28** for covering a length of the second sheet **4** intermediate the first drywall-joint cover **27** and the second drywall-joint cover **28**.

The bull-nose arcuate corner **21** can be positioned intermediate the first side **6** and the second side **7** of the first drywall-joint cover **27** for covering vacant space **22** and arcuate drywall edges **23** selectively intermediate the first sheet **3** and the second sheet **4** proximate the first drywall-joint cover **27**. The bull-nose arcuate

corner **21** can be positioned also intermediate the first side **6** and the second side **7** of the second drywall-joint cover **28** for covering vacant space **22** and arcuate drywall edges **23** selectively intermediate the first sheet **3** and the second sheet **4** proximate the second drywall-joint cover **28**.

The wall-end second side **26**, the bull-nose arcuate corner **21** proximate the first drywall-joint cover **27**, the bull-nose arcuate corner **21** proximate the second drywall-joint cover **28**, the first side **6** of the first drywall-joint cover **27** and the first side **6** of the second drywall-joint cover **28** can be articulated for receiving predetermined wall-finishing material.

Referring to **FIGS. 13-15**, a wall-end first side **30** can be common to the first drywall-joint cover **27** and to the second drywall-joint cover **28** for covering a length of the first sheet **3** intermediate the first drywall-joint cover **27** and the second drywall-joint cover **28**.

The wall-end first side **30**, the bull-nose arcuate corner **21** proximate the first drywall-joint cover **27**, the bull-nose arcuate corner **21** proximate the second drywall-joint cover **28**, the first side **6** of the first drywall-joint cover **27** and the first side **6** of the second drywall-joint cover **28** can be articulated for receiving the predetermined wall-finishing material.

Referring to **FIGS. 16-27**, the drywall-joint fixture can include an inside drywall-joint cover **33** that is articulated for covering a predetermined inside drywall joint **34** of the first sheet **3** of drywall and the second sheet **4** of drywall of the inside drywall joint **34** after the first sheet **3** and the second sheet **4** of drywall of the inside drywall joint **34** are positioned on inside wall framework **35** of a building.

The first side **6** of the inside drywall-joint cover **33** is for covering the predetermined first-edge area **14** on the first sheet **3**. The second side **7** of the

drywall-joint cover **33** is for covering a predetermined second-edge area **15** on the second sheet **4**.

The attachment flange **8** is predeterminedly rigid and extended from an inside surface of a predetermined side of the drywall-joint cover **33**. The attachment flange **8** is predeterminedly longer than and parallel to the first side **6** of the drywall-joint cover **1**. The attachment flange **8** is articulated for being inserted intermediate the first-sheet edge **9** and the second-sheet edge **10** and is articulated further for being penetrable by fastener shanks **12** and for being glued selectively for maintaining the drywall-joint cover **33** in a covering position on the inside drywall joint **34**.

The inside drywall-joint cover **33** includes a concave corner **24** intermediate the first side **6** and the second side **7** with the attachment flange **8** positioned intermediate edges of the first sheet **3** and the second sheet **4** as shown in **FIGS. 20-21** and **26-27**.

The attachment flange **8** can be positioned on the first-sheet edge **9** which is intermediate edges of the first sheet **3** and the second sheet **4** as shown in **FIGS. 16-19** and **22-25**.

Optionally, the attachment flange **8** can be positioned on the second-sheet edge **10** intermediate edges of the first sheet **3** and the second sheet **4**.

An inside-wall edge **25** can be extended intermediate the first side **6** and the attachment flange **8** as shown in **FIGS. 20** and **27**. Optionally, the inside-wall edge **25** can be extended intermediate the second side **7** and the attachment flange **8** as shown in **FIGS. 17, 19, 23** and **25**.

Referring to **FIGS. 28-32**, the drywall-joint fixture can include a juxtapositional drywall-joint cover **37** that is articulated for covering a predeterminedly juxtapositional drywall joint **38** of the first sheet **3** of drywall and

the second sheet **4** of drywall of the juxtapositional drywall joint **38** that are predeterminedly juxtaposed after the first sheet **3** and the second sheet **4** of drywall of the juxtapositional drywall joint **38** are juxtaposed on juxtapositional wall framework **39** of the building. The first side **6** of the juxtapositional drywall-joint cover **37** is for covering the predetermined first-edge area **14** on the first sheet **3**. The second side **7** of the juxtapositional drywall-joint cover **37** is for covering the predetermined second-edge area **15** on the second sheet **4**.

A juxtapositional-attachment flange **40** is extended intermediate interfacing walls of the first side **6** and the second side **7** of the juxtapositional drywall-joint cover **37**. The second side **7** is predeterminedly longer than the first side **6** of the juxtapositional drywall-joint cover **37**.

The juxtapositional-attachment flange **40** is articulated for being inserted intermediate the first-sheet edge **9** and the second-sheet edge **10**.

The second side **7** is articulated for penetration by fastener shanks **12** driven through the first side **6** and through the second side **7** and into the juxtapositional wall framework **39** selectively for maintaining the juxtapositional drywall-joint cover **37** in the covering position on the juxtapositional drywall joint **38**.

The first side **6** can be articulated to be covered by the wall-finishing material **29**.

The first sheet **3** and the second sheet **4** can be predeterminedly juxtaposed at an optionally acute angle with the fastener shanks **12** positioned orthogonally in a cap backer **41** and in the juxtapositional wall framework **39** as shown in **FIG. 29**.

The first sheet **3** and the second sheet **4** can be predeterminedly juxtaposed at an optionally acute angle with the fastener shanks **12** positioned orthogonally in the

first sheet **3**, the second sheet **4** and the juxtapositional wall framework **39** as shown in **FIG. 30**.

The first sheet **3** and the second sheet **4** can be predeterminedly juxtaposed at an optionally obtuse angle with the fastener shanks **12** positioned orthogonally in the first sheet **3**, the second sheet **4** and the juxtapositional wall framework **39** as shown in **FIG. 31**.

As shown in **FIG. 32**, the first sheet **3** and the second sheet **4** can be predeterminedly juxtaposed at a straight angle with the fastener shanks **12** positioned orthogonally in the second side **7** and the cap backer **41** extended from opposite ends of the second side **7**.

Referring to **FIGS. 33-34**, the drywall-joint fixture can include a dual drywall-joint cover **42** having an attachment base **43** that is orthogonal to a first attachment flange **44** and a second attachment flange **45** that are extended from an attachment side of the attachment base **43**. A first cover wall **46** is extended from proximate a first end of the attachment base **43**. A second cover wall **47** is extended from proximate a second end of the attachment base **43**. The first cover wall **46** and the second cover wall **47** are predeterminedly shorter than the first attachment flange **44** and the second attachment flange **45** in distance of extension from the attachment base **43**.

Slots **48** can be included in an end of at least the first cover wall **46** and optionally in an end of at least the first attachment flange **44**.

A method includes the following steps for using the drywall-joint fixture of claim **2**:

affixing the first sheet **3** and the second sheet **4** of the drywall to the wall framework **5**;

allowing a predetermined amount of space to remain between a side of the first sheet **3** and an end edge of the second sheet **4** of the drywall when being affixed to the wall framework **5**;

inserting the attachment flange **8** into the space allowed to remain between the first sheet **3** and the second sheet **4** of the drywall;

positioning the first side **6** of the drywall-joint cover **1** in juxtaposed contact with an outside surface of the first sheet **3**;

positioning the second side **7** of the drywall-joint cover **1** in juxtaposed contact with an outside surface of the second sheet **4**;

driving a selected plurality of the fastener shanks **12** into and through the fastener-edge area **13** of the first sheet **3**;

driving the selected plurality of the fastener shanks **12** through the attachment flange **8**; and

driving the selected plurality of the fastener shanks **12** into the wall framework **5**.